

# UBI EasyCoder 401 – User's Manual

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*UBI EasyCoder 401  
User's Manual  
Edition 2, September 1996  
Article No. 1-960368-01*



# UBI EasyCoder 401 – User's Manual

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*Windows is a trademark of Microsoft Corporation.*

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### WARNING:

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## DOC Notice Canada

### Canadian Dept. of Communication REGULATIONS COMPLIANCE (DOC-A)

This digital apparatus does not exceed the class A limits for radio noise emissions from a digital apparatus as set out in the radio interference regulations of the Canadian Department of Communication.

\* \* \*

### Ministère des Communications du Canada CONFORMITE DE REGLEMENTS (DOC-A)

Le présent appareil numérique n'émet pas de bruits radio-électriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le règlement sur brouillage radioélectrique édicté par le Ministère des Communications du Canada.

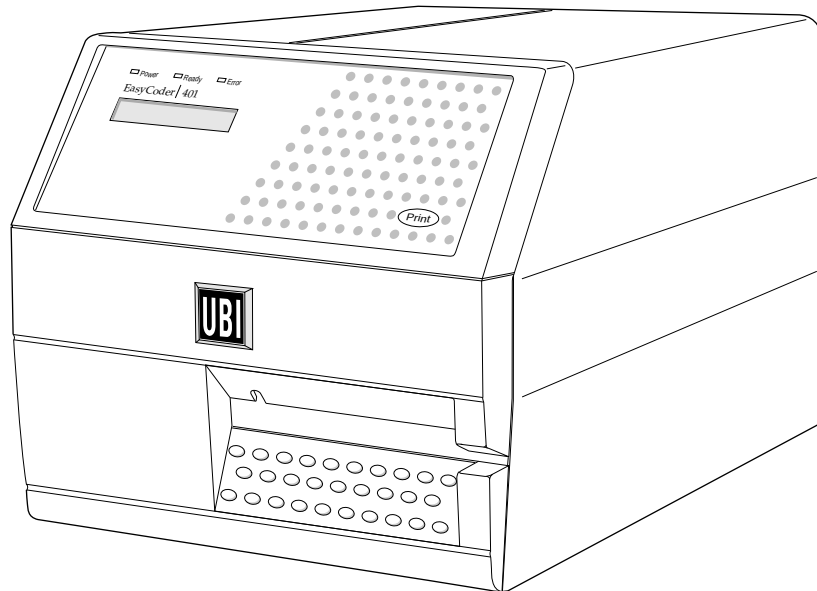
## VDE Notice Germany

### ALLGEMEINE VORSCHRIFT:

Reparaturen oder sonstige Eingriffe, die sich nicht auf normale Bedienung der Maschine beziehen, dürfen ausschließlich nur von einem **ausgebildeten, zuständigen Fachmann** vorgenommen werden.



## INTRODUCTION



The *UBI EasyCoder 401* is a rugged industrial thermal transfer/direct thermal printer intended for low volume label production of max. 1,000 – 2,000 labels/day.

The *EasyCoder 401* can be controlled by a host computer using standard or custom-made application software, e.g. the *UBI LabelShop* label-design program for *Microsoft Windows*. Custom-made applications can be written in the versatile Basic-inspired *UBI Fingerprint* programming language.

The printer can also be connected to an *Apple Macintosh* computer or a PC running *Windows 3.1* and used to produce printouts from standard application programs like e.g. *Microsoft Word* or *Microsoft Excel*. This requires an optional printer driver program to be installed in the computer, and – in case of *Windows* – an optional parallel interface board to be fitted in the printer.

Optionally, the *EasyCoder 401* can be fitted with a scalable fonts kit that allows the use of outline fonts

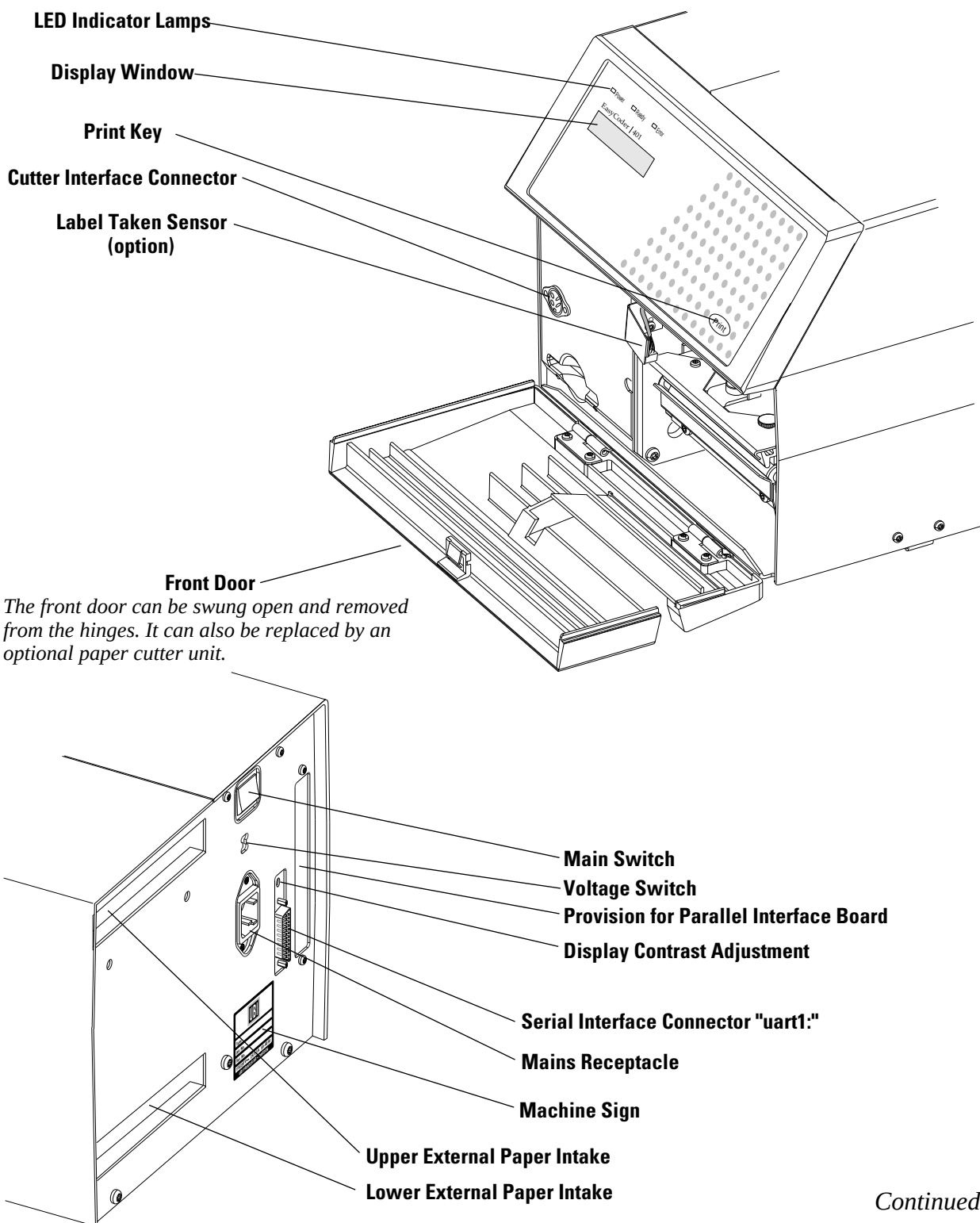
in *Speedo* and *TrueType* format, a paper cutter or label-taken sensor, and a real-time clock circuit.

Information on the different options can be found in the *UBI EasyCoder 401 Technical Manual*, which also describes installation and computer connection.

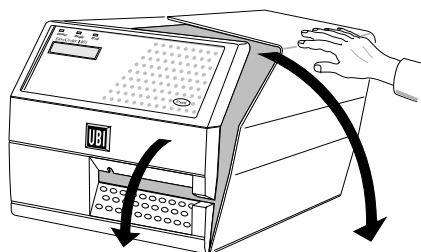
The following manuals may be of interest to the operator or programmer:

- *UBI EasyCoder 401, Operator's Guide*
- *UBI Shell Standard, Startup Manual*
- *UBI EasyCoder 401 Technical Manual*
- *UBI Fingerprint Direct, Programmer's Guide*
- *UBI Fingerprint, Programmer's Guide*
- *UBI Fingerprint, Reference Manual*
- *UBI LabelShop, various manuals*
- *UBI Windows Driver, Installation Instructions*
- *UBI Macintosh Driver, Installation Instructions*

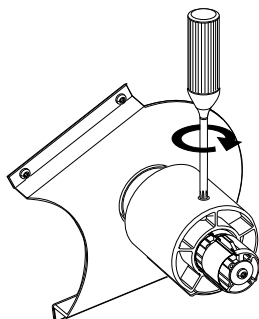
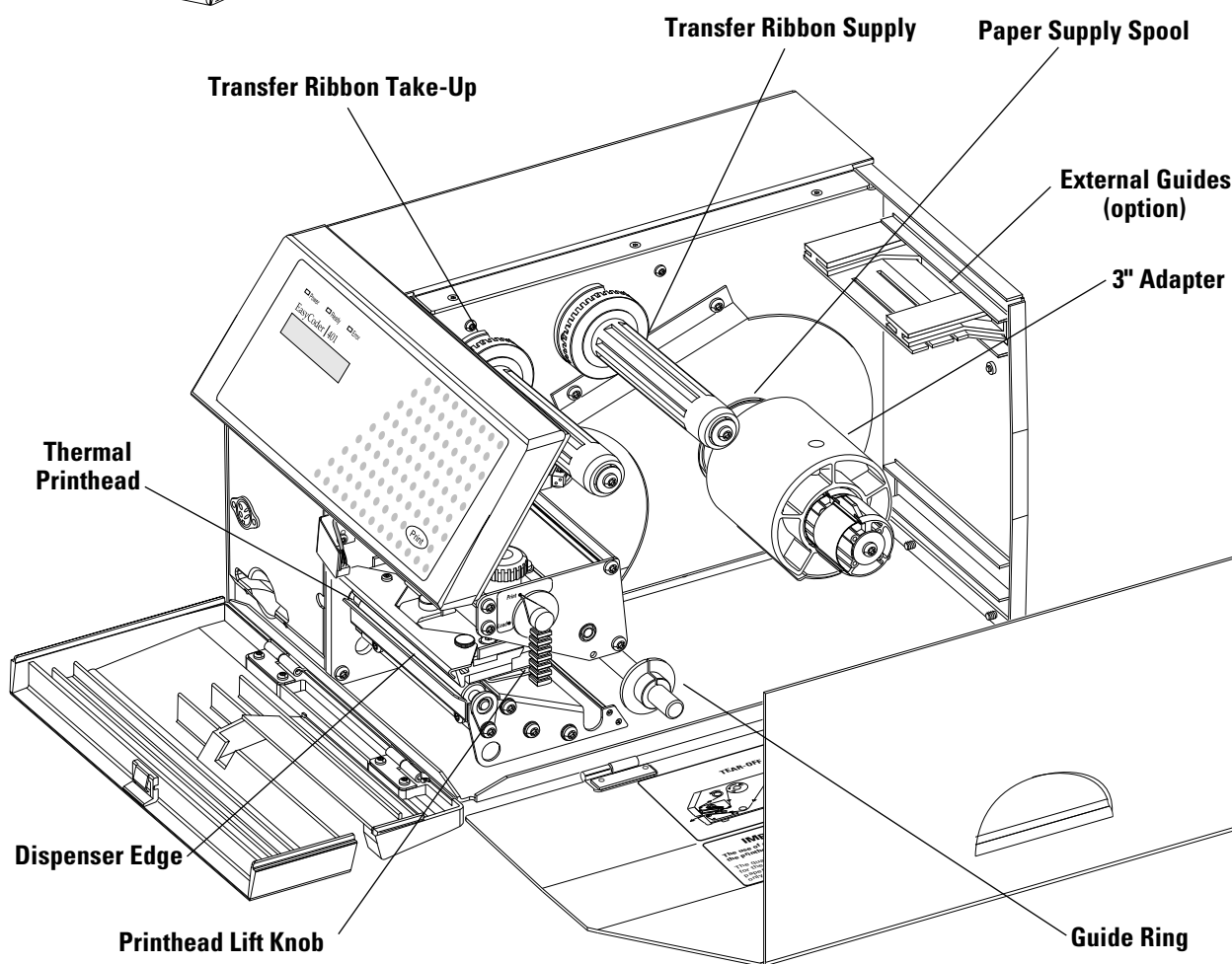
## GET TO KNOW YOUR PRINTER



## GET TO KNOW YOUR PRINTER, cont'd.



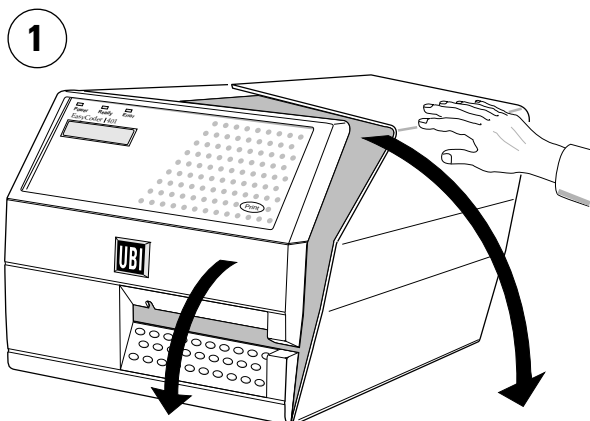
The paper stock compartment becomes accessible when the right-hand and front doors are swung open. Although the printer is operable when the doors are left opened or completely removed, you are strongly recommended to keep them closed during normal operation, so as to prevent the printer mechanism from being exposed to dust.



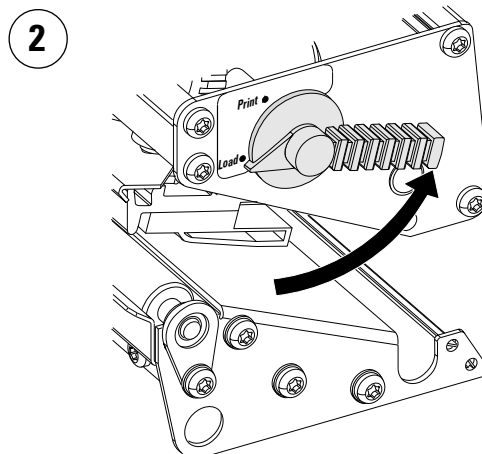
The adapter for 76 mm (3") paper roll cores is included in the delivery and can be fitted on the paper supply spool.

Lock the adapter by means of the screw, making sure that the screw hits the evenly rounded plastic surface, rather than the leaf spring or the cam.

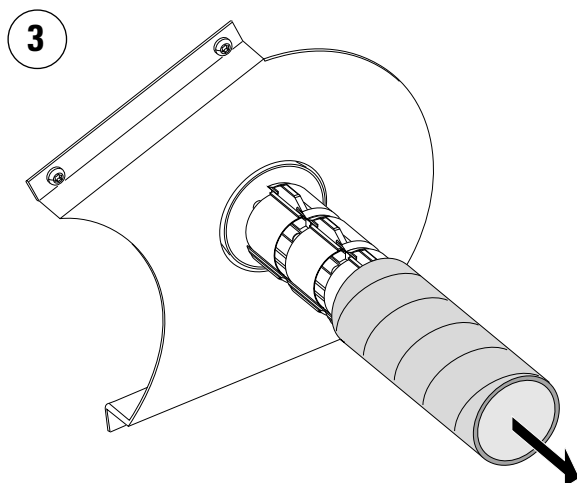
## PAPER LOAD – TEAR OFF



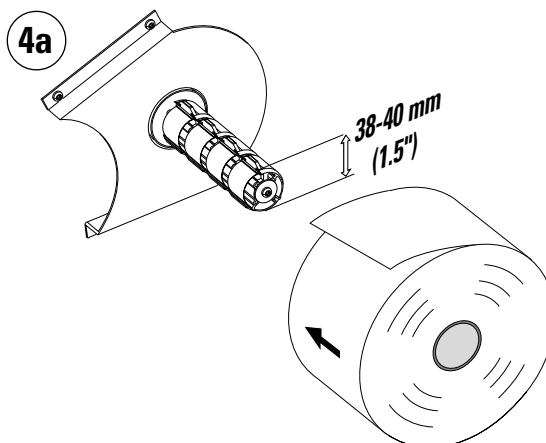
*Open the front and right-hand doors.*



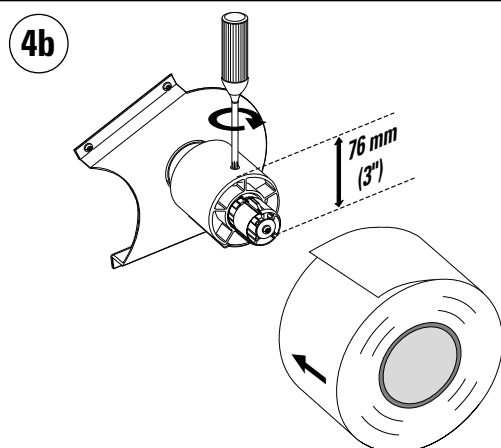
*Turn the printhead lift knob to "Load" position.*



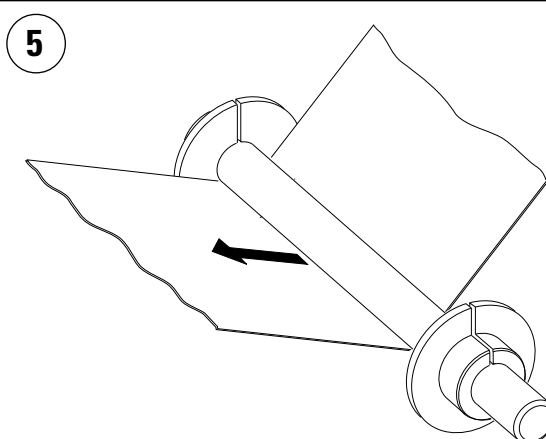
*Remove the empty paper core, if any.*



*Fit a new paper roll on the paper supply spool and push the roll inwards as far as it will go.*

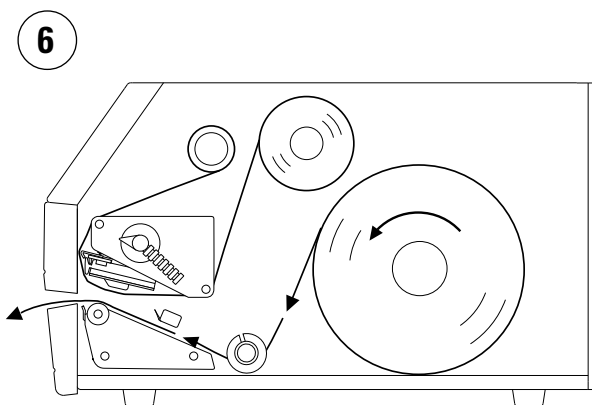


*In case of paper roll with a 76.2 mm (3 inches) core, first fit the adapter on the paper supply spool.*

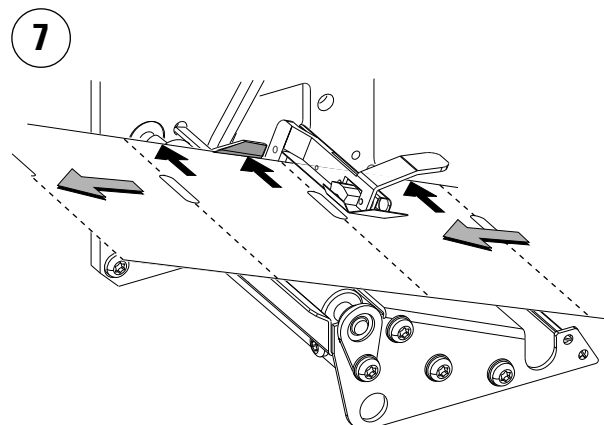


*Thread the paper underneath the guide shaft behind the print mechanism.*

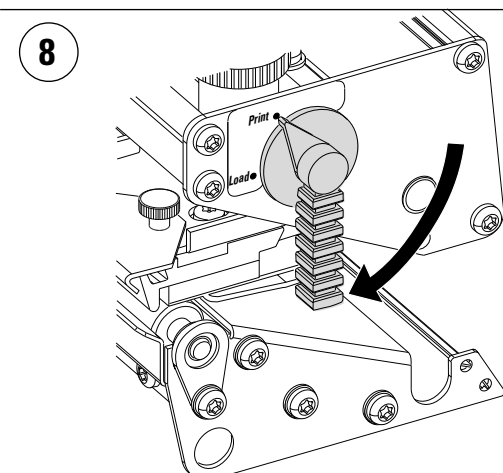
## PAPER LOAD – TEAR OFF, cont'd.



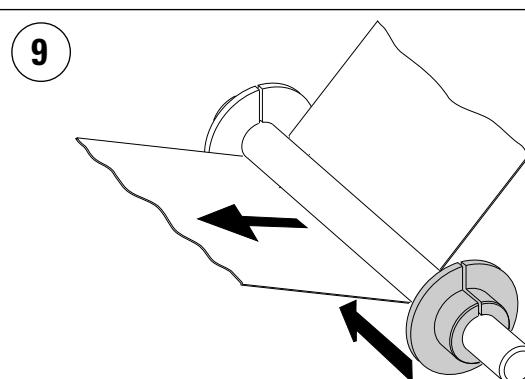
*This diagram shows the path of the paper web.*



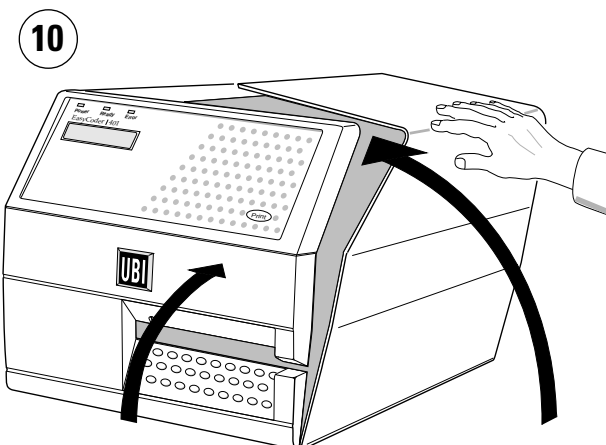
*Push the paper inwards as far as it will go.*



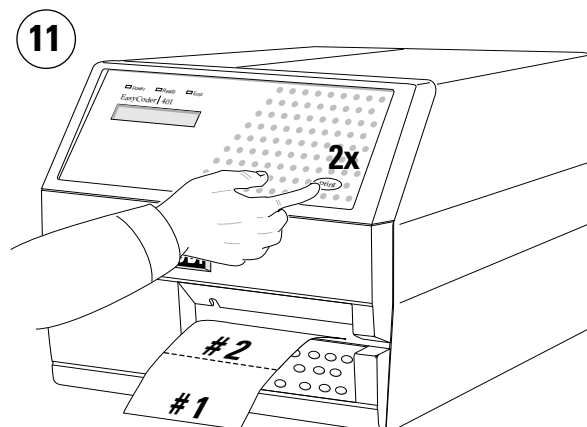
*Turn the printhead lift knob to "Print" position.*



*Adjust the green guide ring so the paper is guided with a minimum of play.*

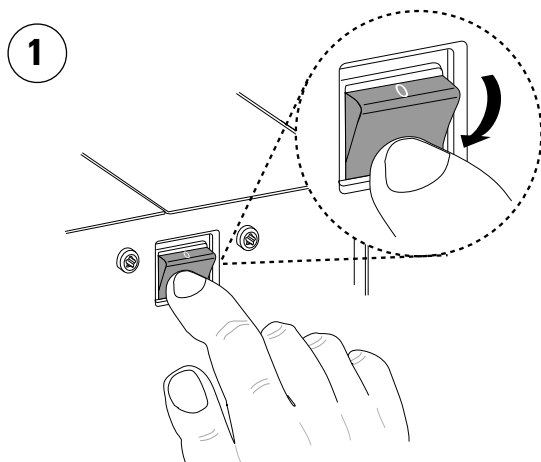


*Close the front and side doors.*

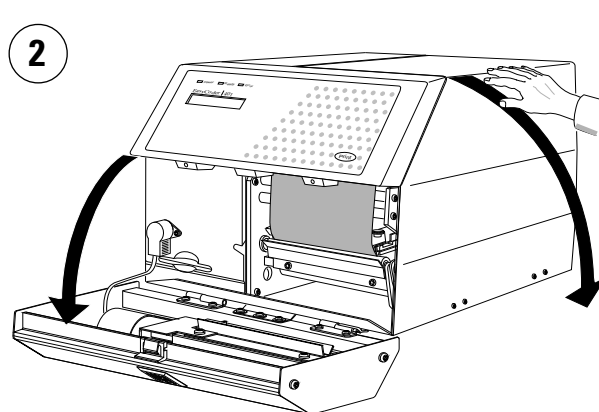


*Feed out two blank copies by pressing the <Print> key twice. Tear off the paper by pulling it downwards.*

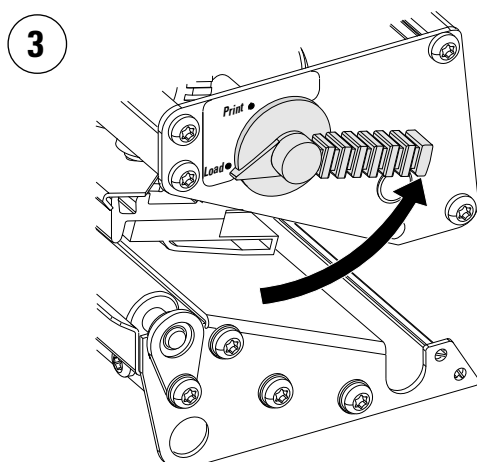
## PAPER LOAD – CUT OFF



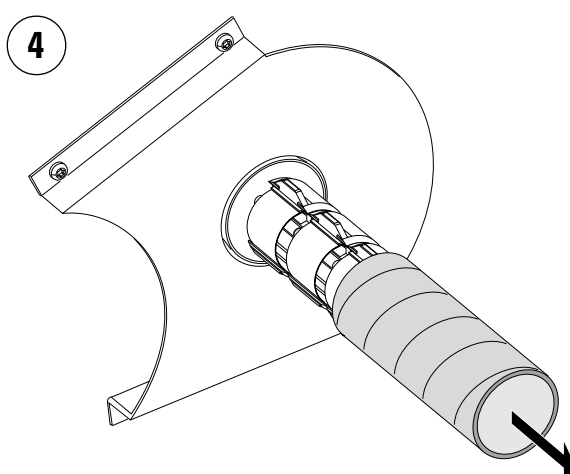
Turn off the power using the switch on the rear plate.



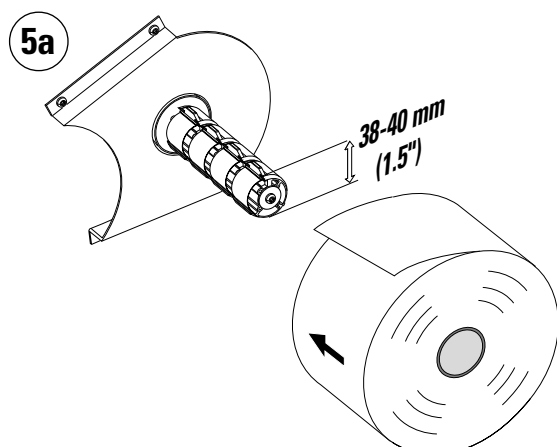
Open the optional cutter unit and the right-hand door.



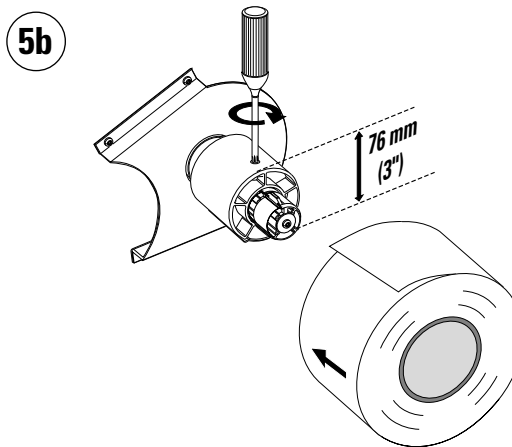
Turn the printhead lift knob to "Load" position.



Remove the empty paper core, if any.



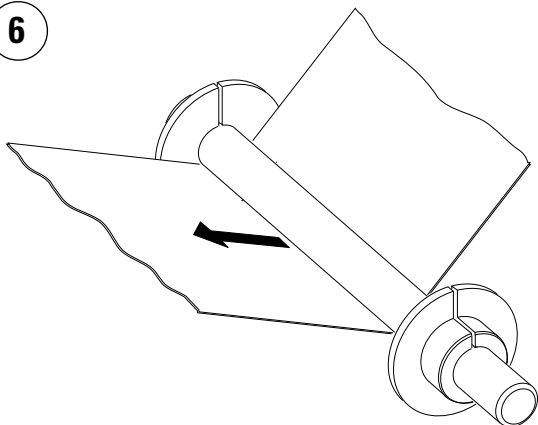
Fit a new paper roll on the paper supply spool and push the roll inwards as far as it will go.



In case of paper roll with a 76.2 mm (3 inches) core, first fit the adapter on the paper supply spool.

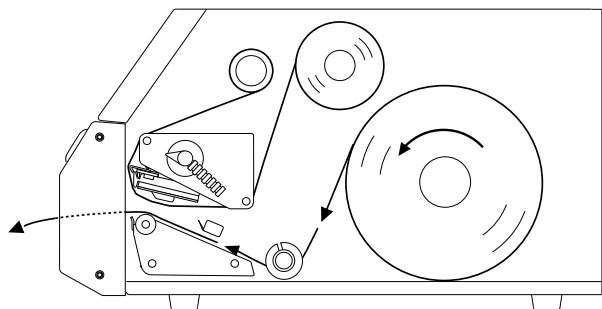
## PAPER LOAD – CUT OFF, cont'd.

6



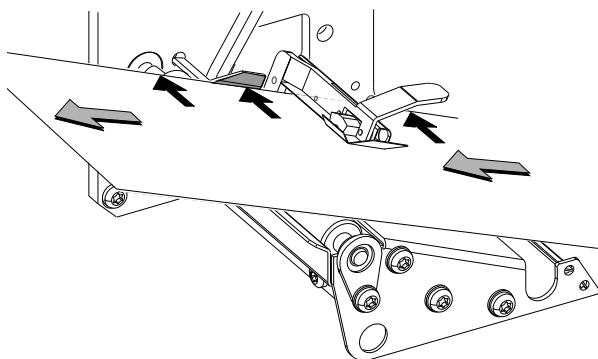
*Thread the paper underneath the guide shaft behind the print mechanism.*

7



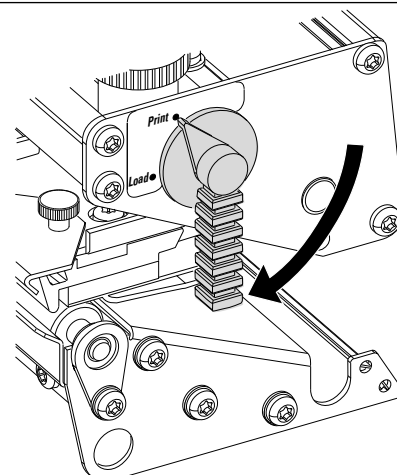
*This diagram shows the path of the paper web.*

8



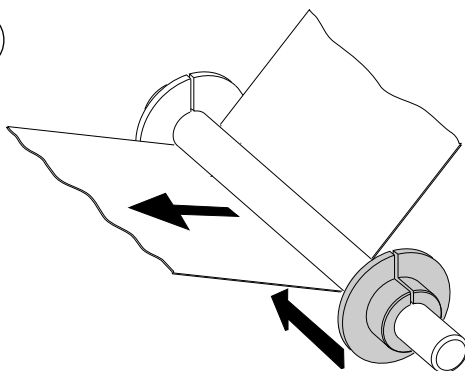
*Push the paper inwards as far as it will go.*

9



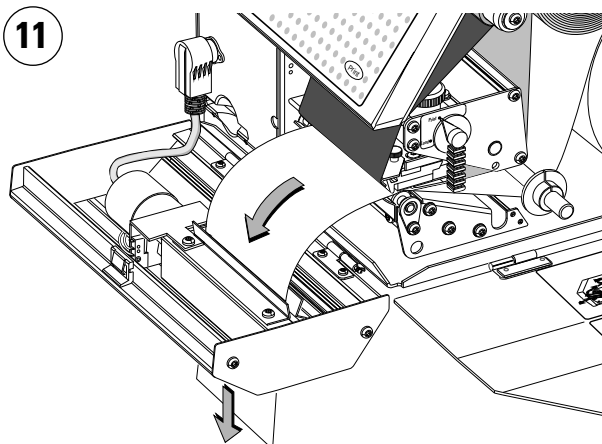
*Turn the printhead lift knob to "Print" position.*

10



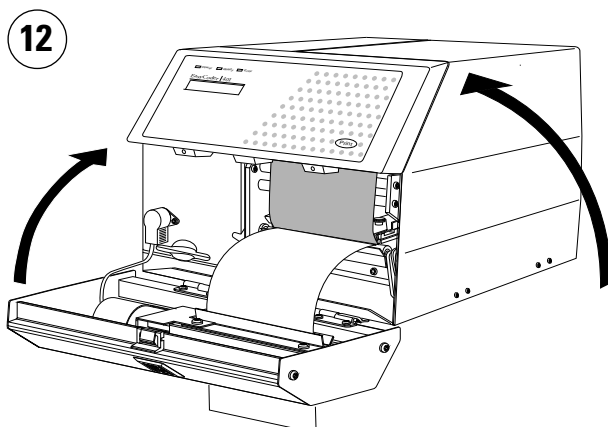
*Adjust the green guide ring so the paper is guided with a minimum of play.*

11

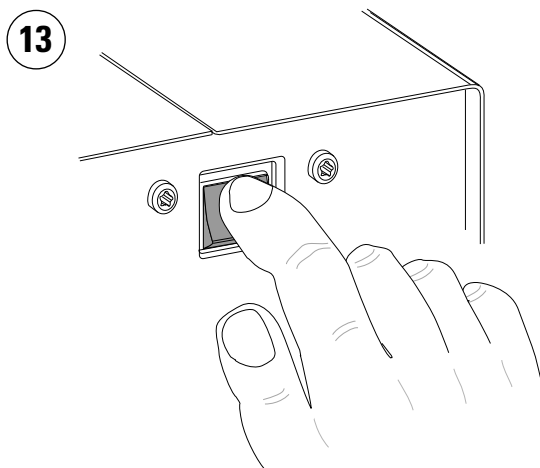


*Thread the paper through the cutter between the two guide plates.*

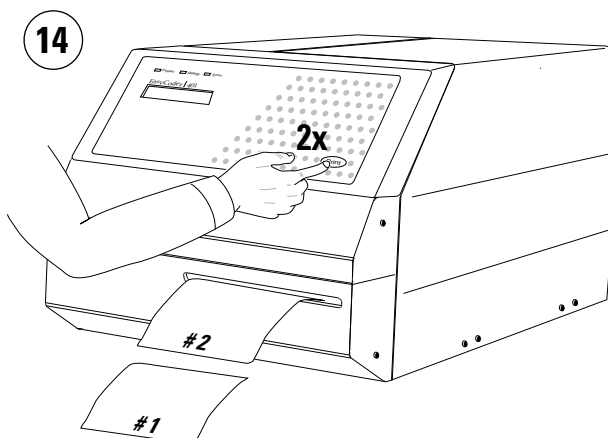
## PAPER LOAD – CUT OFF, cont'd.



Close the cutter unit while pulling at the end of the paper.  
Close the right-hand door.



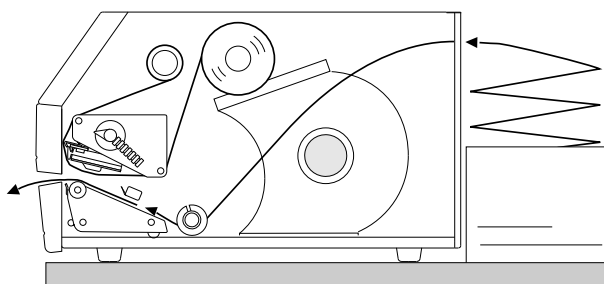
Turn on the power using the switch on the rear plate.



Feed out and cut two blank copies by pressing the  
<Print> key twice.

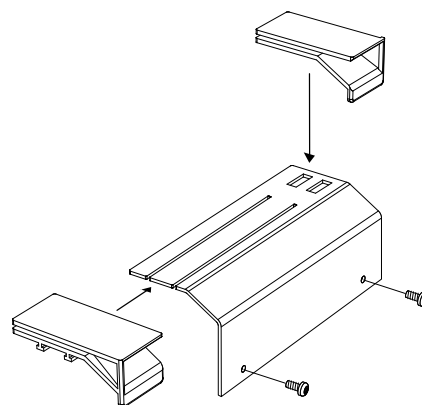
## PAPER LOAD – EXTERNAL PAPER SUPPLY

1



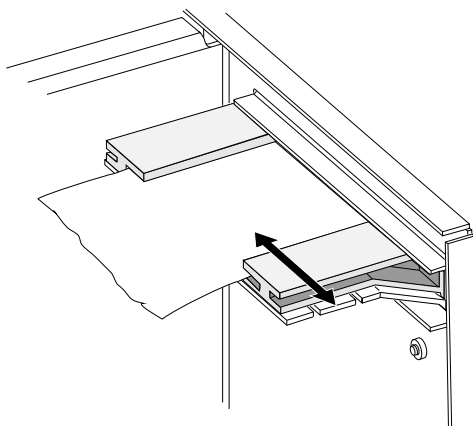
*The printer can be supplied with paper from e.g. an external label roll or a box of fan-fold tickets via the upper or lower slot in the rear plate.*

2



*As an option, the printer can be fitted with a set of fan-fold guides in the upper intake slot only.*

3

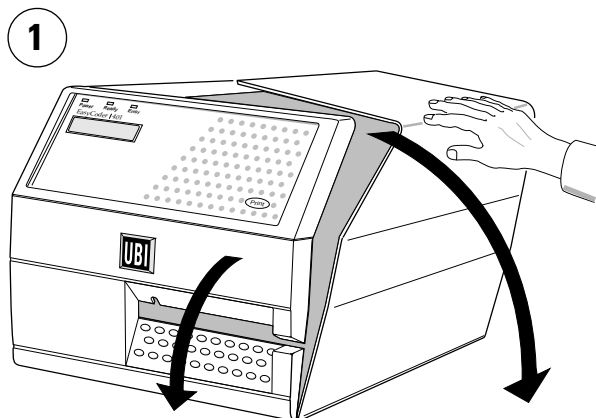


*The outer guide is adjustable for different paper widths.*

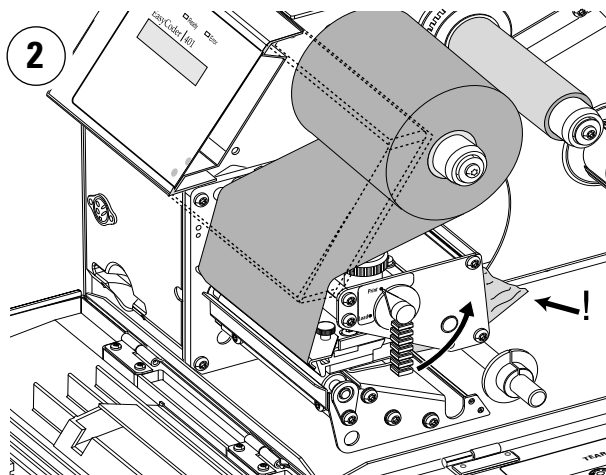


*When an external paper supply is used, take precautions to protect the paper stock from sand, grit and other hard particles, that may damage the printhead!*

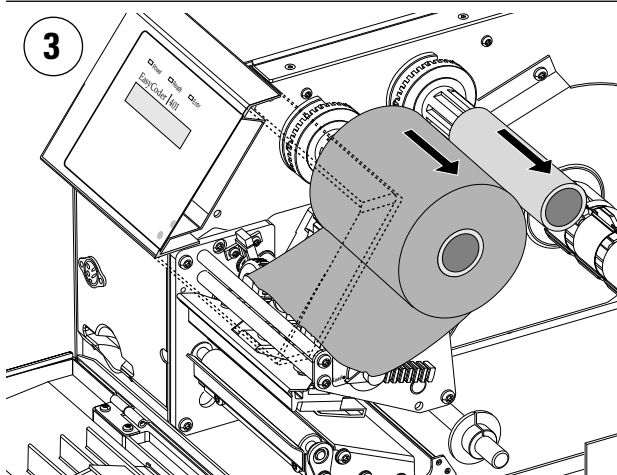
## RIBBON LOAD



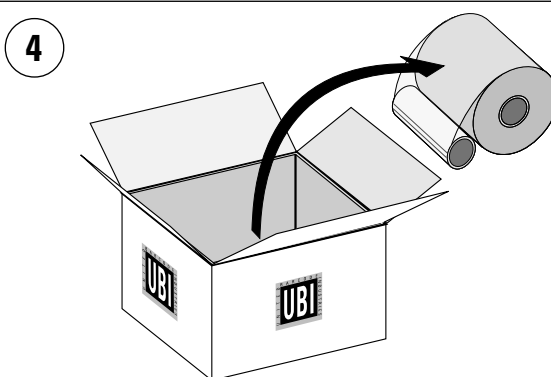
Open the front and right-hand doors.



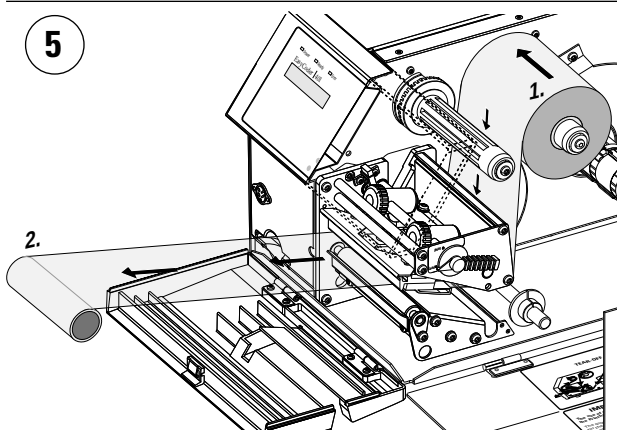
Turn the printhead lift knob to "Load" position.



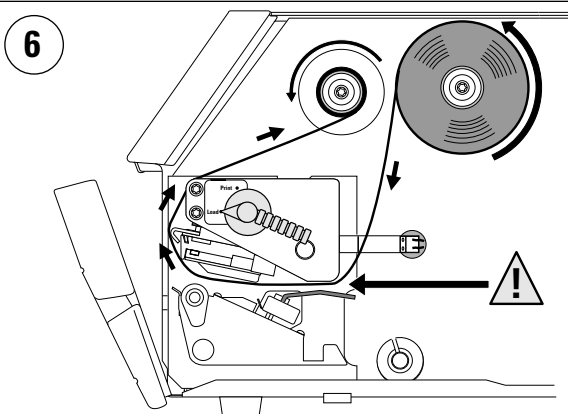
Pull out the used-up ribbon and the empty ribbon core.



Unpack a roll of original UBI transfer ribbon. The use of any thermal transfer ribbon, other than those supplied by UBI, will invalidate the printhead warranty.



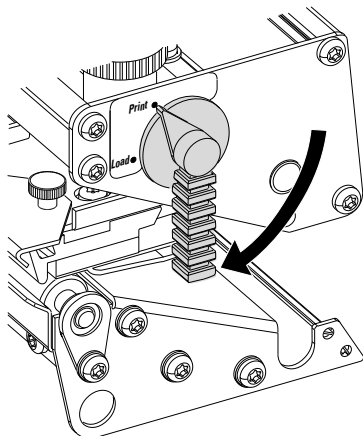
Press the ribbon roll onto the ribbon supply spool (1) and thread the ribbon under the upper part of the print unit. Pull out approx. 20 cm (8") of ribbon (2).



Be careful to thread the ribbon **above** the handle of the label stop sensor! The ribbon must be fitted so the spools rotate counter-clockwise, as illustrated above.

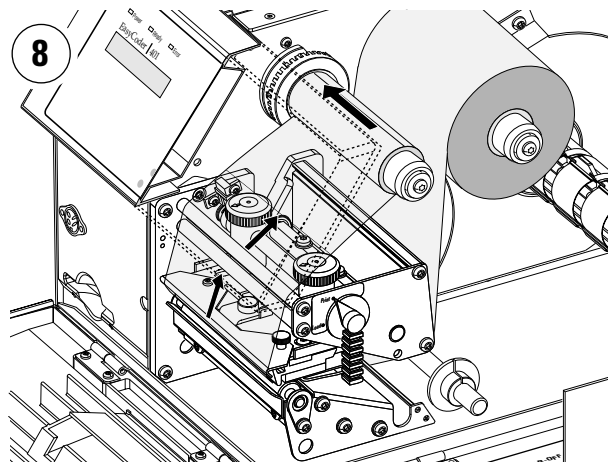
## RIBBON LOAD, cont'd.

7



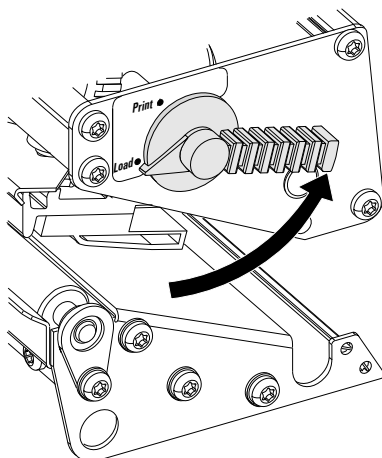
Without releasing the ribbon, turn the printhead lift knob to "Print" position so as to lock the ribbon.

8



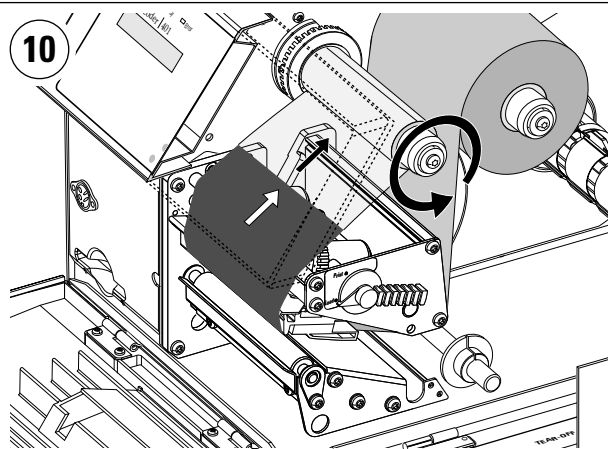
Press the paper core at the front end of the ribbon onto the take-up spool.

9



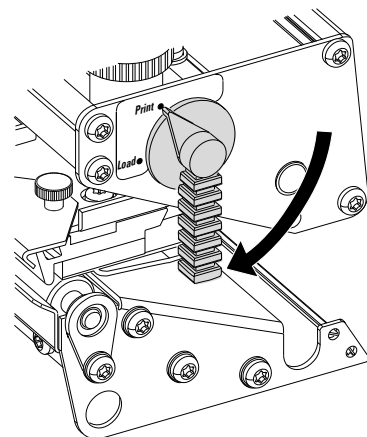
Turn the printhead lift knob to "Load" position.

10



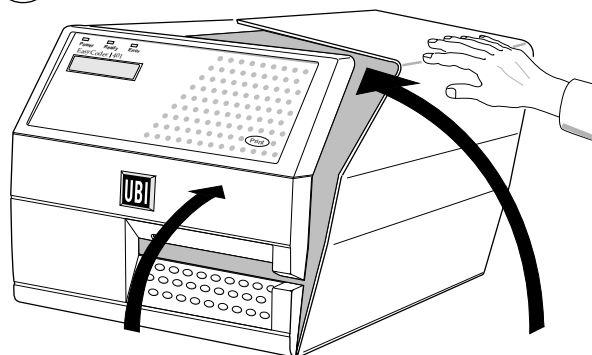
Wind up the ribbon until all of the transparent part has passed the printhead and the ribbon becomes tight.

11



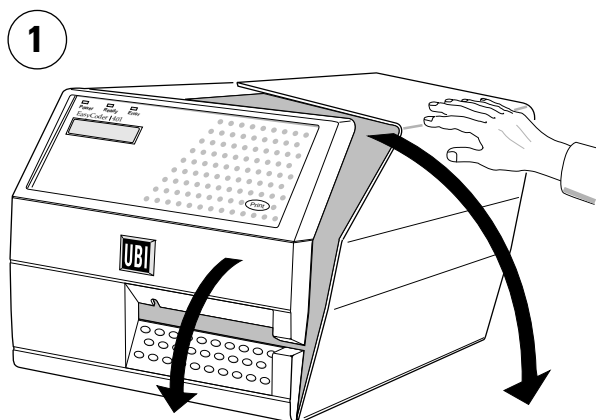
Turn the printhead lift knob to "Print" position.

12

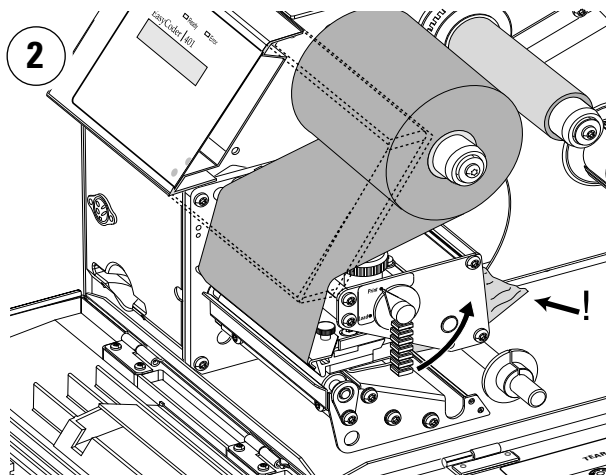


Close the front and side doors.

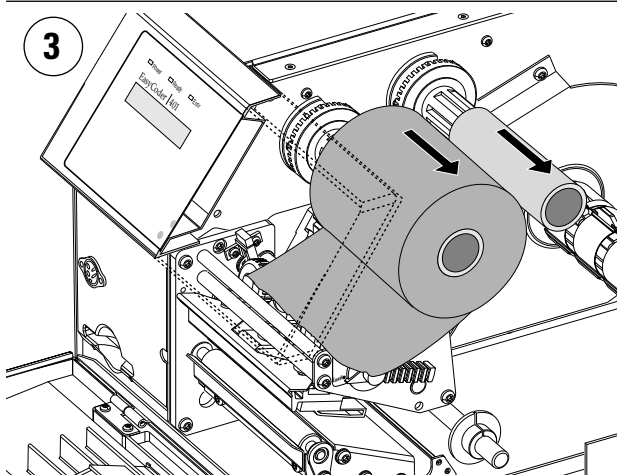
## RIBBON LOAD USING A RIBBON CASSETTE



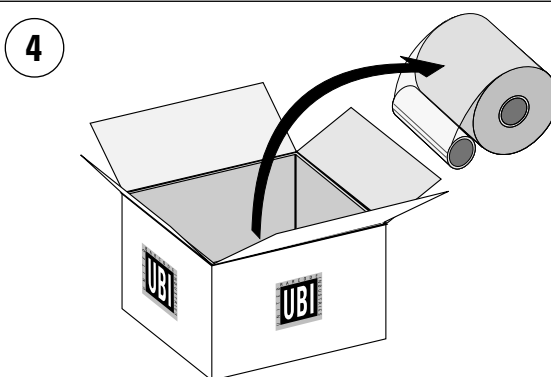
Open the front and right-hand doors.



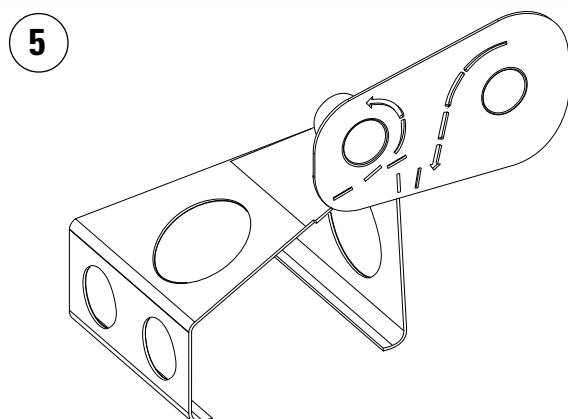
Turn the printhead lift knob to "Load" position.



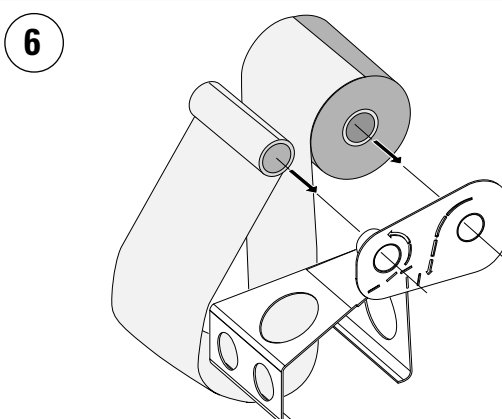
Pull out the used-up ribbon and the empty ribbon core.



Unpack a roll of original UBI transfer ribbon.  
The use of any thermal transfer ribbon, other than those supplied by UBI, will invalidate the printhead warranty.

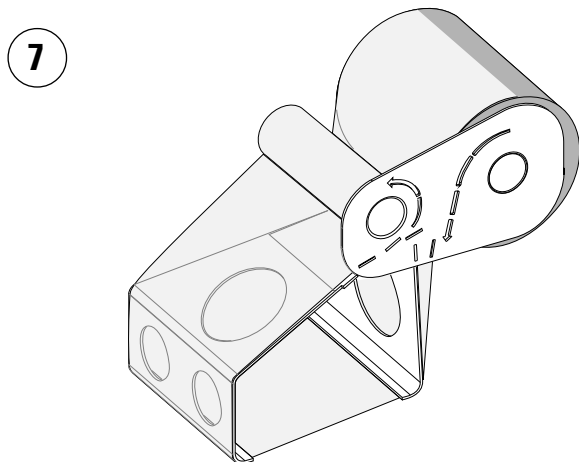


The ribbon cassette is an optional device, that speeds up and facilitates ribbon reloads. Prepare by keeping a loaded cassette ready.

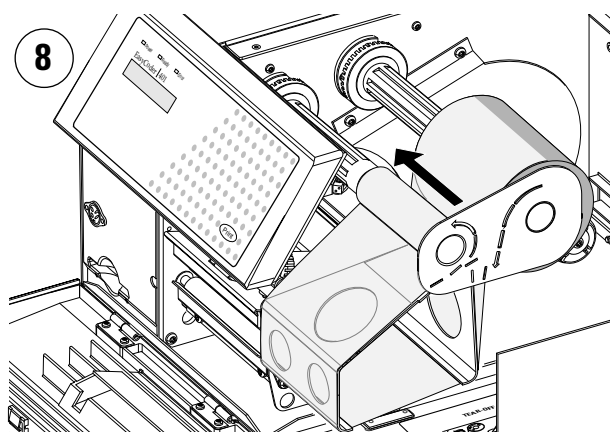


Press the spools of the ribbon onto the sockets of the cassette, as indicated by the stamped-out arrows, with the transparent part hanging in a loop.

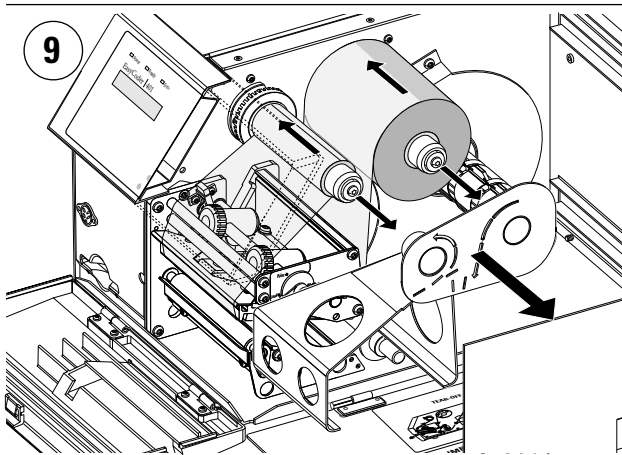
## RIBBON LOAD USING A RIBBON CASSETTE, cont'd.



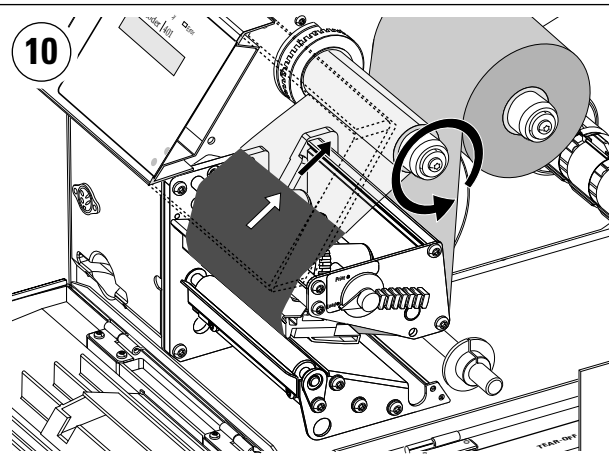
Wind up excessive ribbon on one of the spools so as to remove any slack.



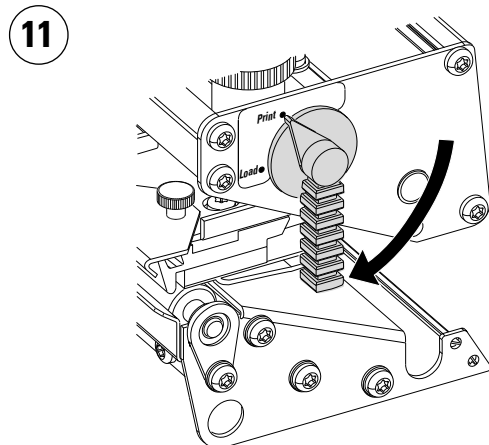
Align the spools on the ribbon cassette with the ribbon unwind and rewind spools on the printer and press the cassette inwards as far as it will go.



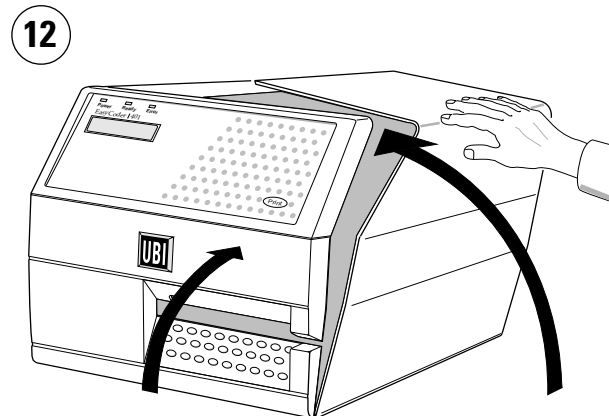
Press the ribbon spools inwards as far as they will go and pull out the ribbon cassette.



Wind up the ribbon until all of the transparent part has passed the printhead and the ribbon becomes tight.



Turn the printhead lift knob to "Print" position.



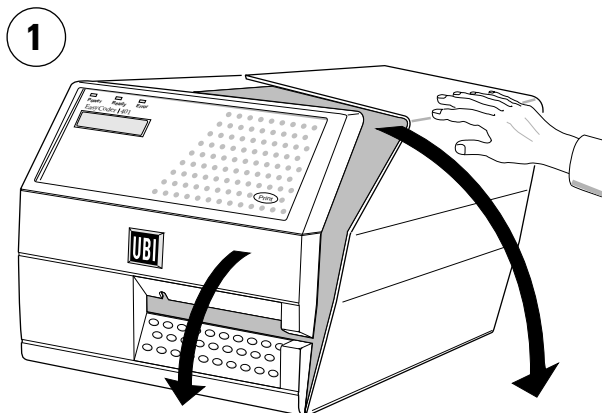
Close the front and side doors.

## PRINthead CLEANING

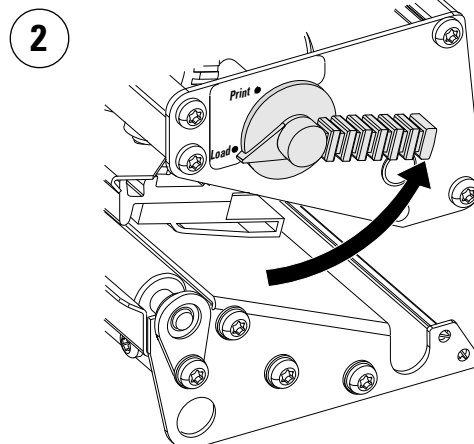
Cleaning of the printhead on a regular basis, preferably in connection with each ribbon or paper reload, is important for the life of the printhead and for the printout quality. Below is a description on how to clean the printhead by means of Cleaning Cards. If additional cleaning is required, e.g. for removing adhesive residue from the print roller or dispenser edge, use a cotton swab moistened with isopropyl alcohol.

**Caution:**

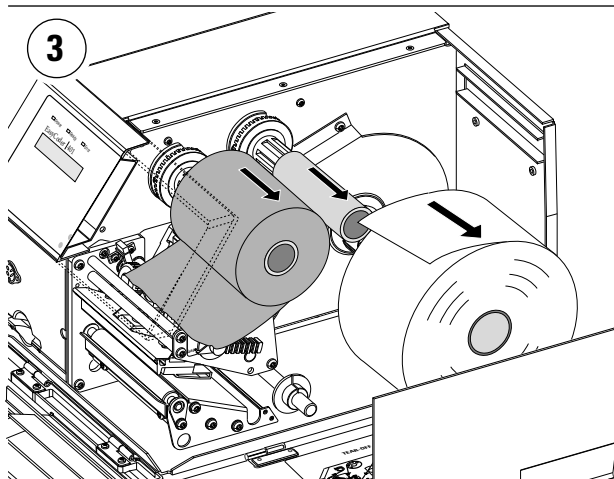
**Isopropyl alcohol [(CH<sub>3</sub>)<sub>2</sub>CHOH; CAS 67-63-0] is a highly flammable, moderately toxic and mildly irritating substance.**



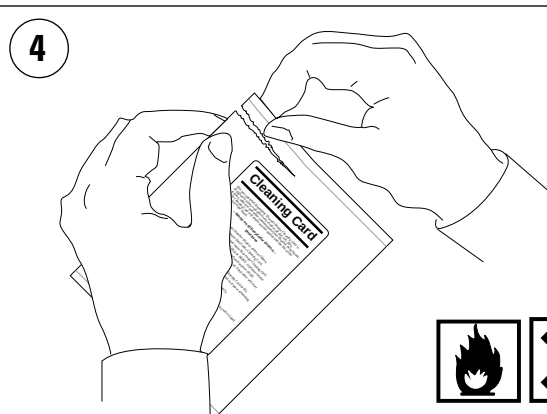
Open the front and right-hand doors.



Turn the printhead lift knob to "Load" position.

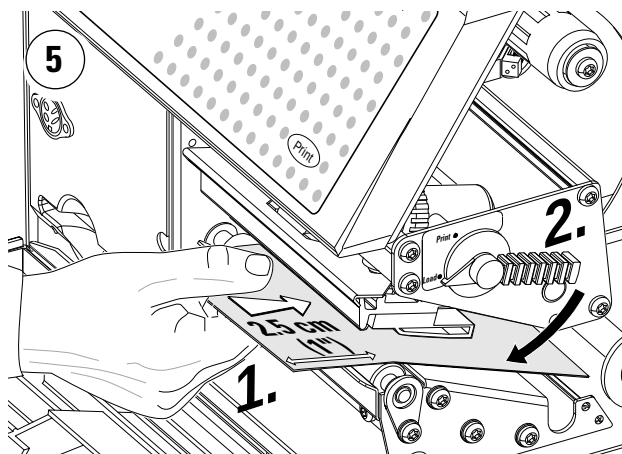


Remove the transfer ribbon and paper supplies.

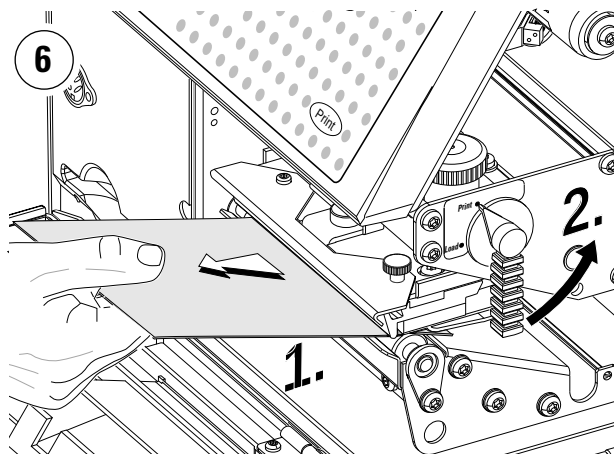


Open the Cleaning Card pouch. The cleaning card contains isopropyl alcohol, see "Caution" above.

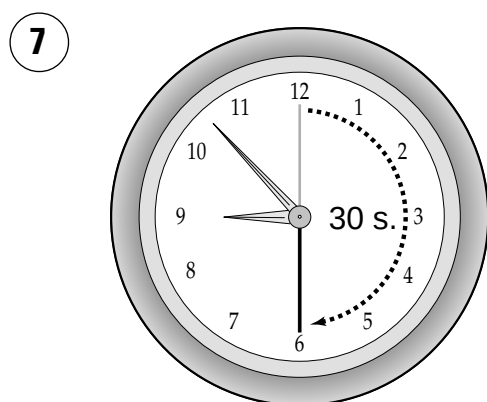
## PRINthead CLEANING, cont'd.



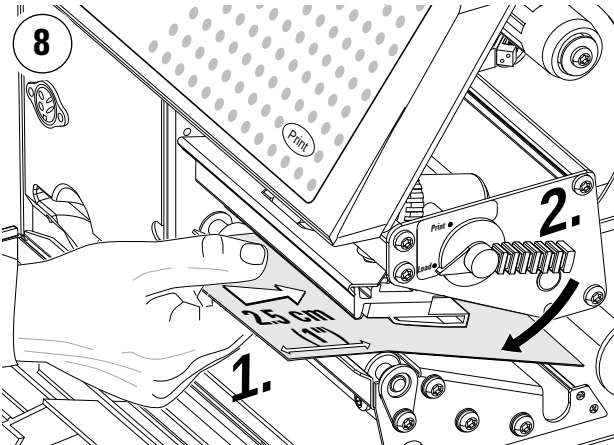
Insert most of the cleaning card under the printhead (1).  
Turn the printhead lift knob to "Print" position (2).



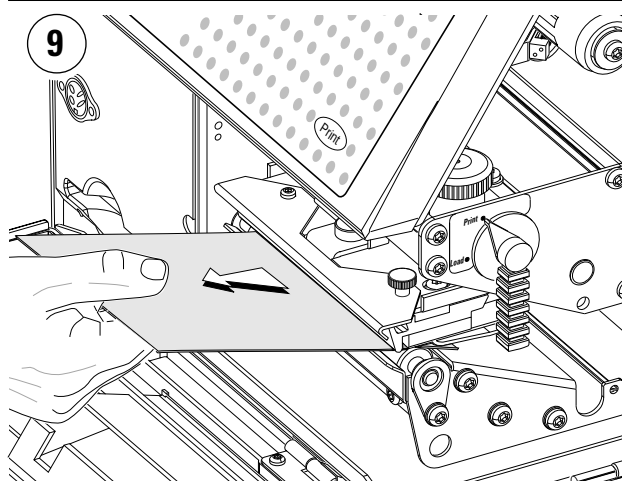
Pull out the cleaning card (1) and turn the printhead lift knob to "Load" position (2).



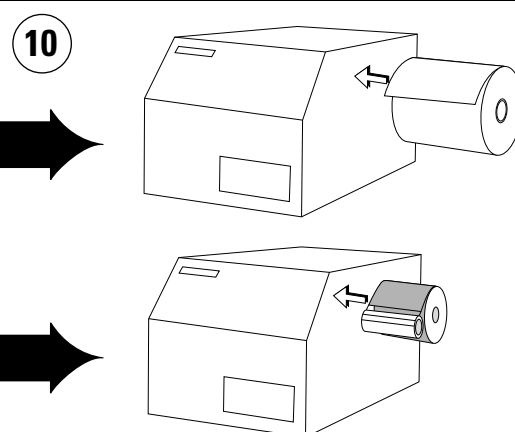
Wait for approx. 30 seconds.



Insert the cleaning card under the printhead again (1).  
Turn the printhead lift knob to "Print" position (2).

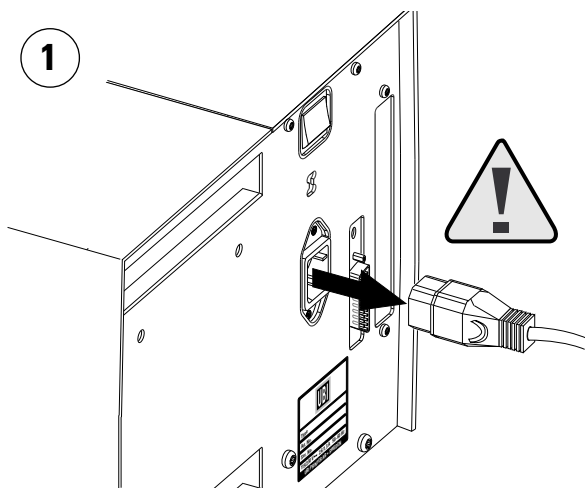


Pull out the cleaning card. Repeat if necessary.

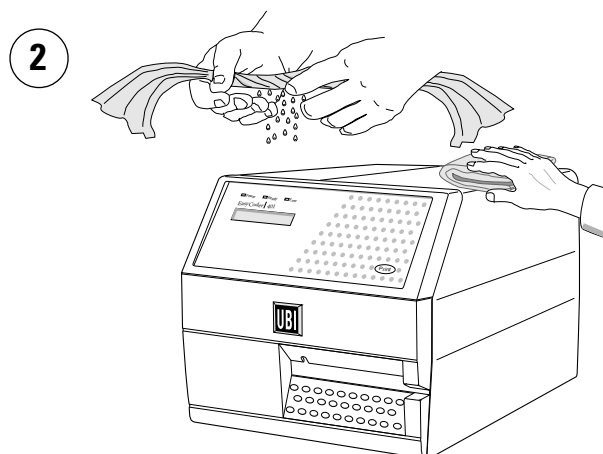


Allow the cleaned part to dry before loading the printer  
with paper and thermal transfer ribbon.

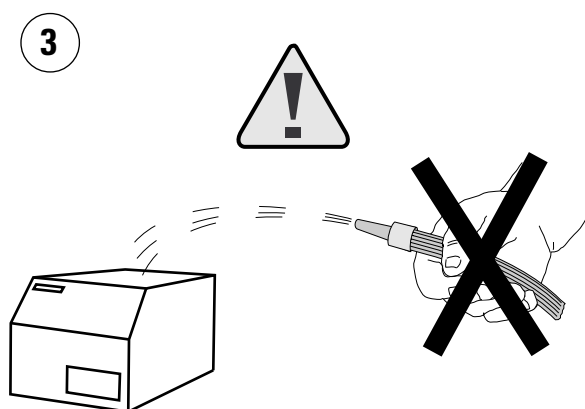
## EXTERNAL CLEANING



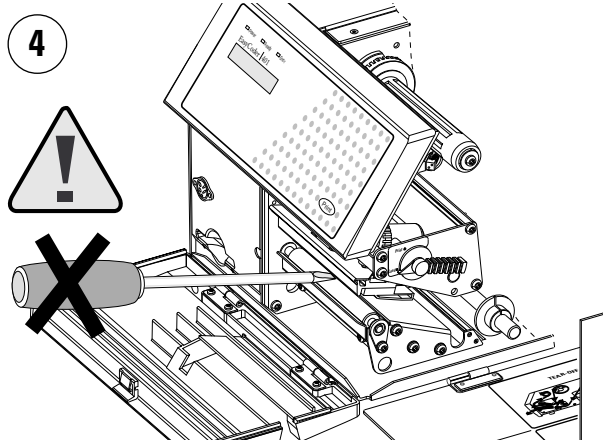
*Always remove the power cord before cleaning!*



*Wipe external surface with a soft cloth moistened with water and, if necessary, a mild detergent.*



*Never spray the printer. Protect the printer from water when cleaning the premises.*

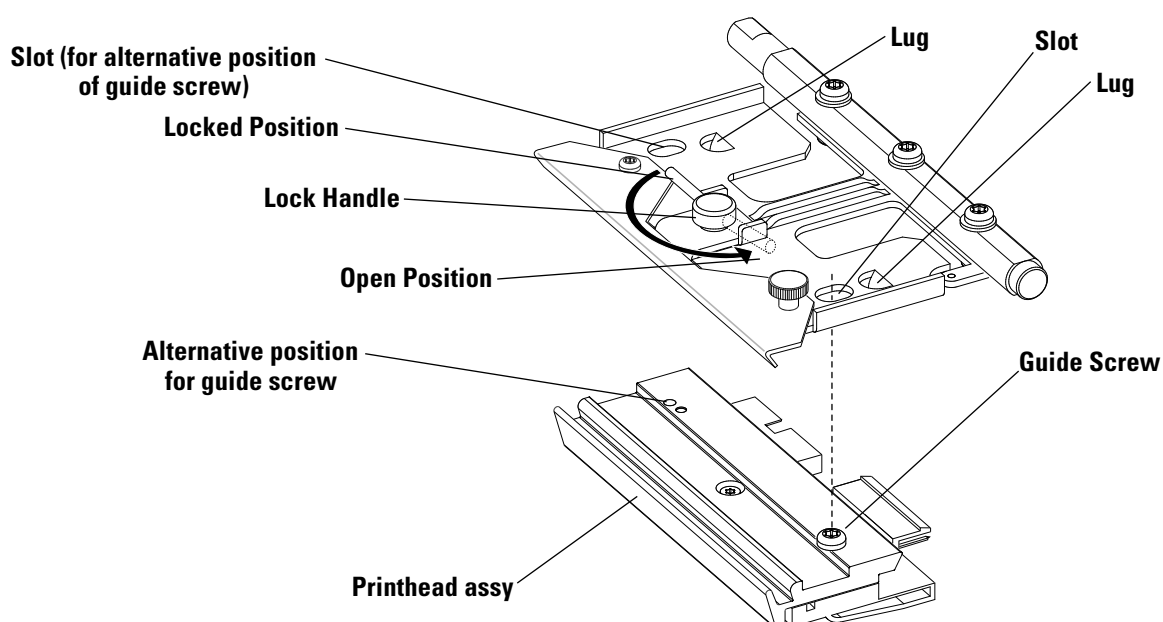


*Never use any sharp tools for removing stuck labels. The printhead and the print roller are easily damaged.*

## PRINthead REPLACEMENT

*The quick-mount thermal printhead is easy to replace:*

- Turn off the printer.
- Open the front and right-hand doors.
- Lift the printhead and remove the paper and ribbon stocks.
- Turn the printhead lock handle counter-clockwise to *open* position, see illustration.
- Remove the printhead assy carefully as far as the cables allow.
- Remove the two printhead cables by pulling at the connectors.
- If you want to change the lateral position of the printhead, move the #T20 Torx screw to its alternative position.
- Connect the two cables to the printhead.
- Fit the replacement printhead assy back into the bracket so the guide screw fits into its slot and the rear end of the assy is held by the two lugs.
- Turn the locking handle clockwise to *locked* position.
- Load paper and transfer ribbon. Then lower the printhead.
- Turn on the power. At power-up, the printer will automatically reset itself to the characteristics of the printhead in regard of head resistance.
- Close the front and right-hand door and the printer is ready for operation.



## TROUBLE SHOOTING

The list below is intended to help the operator to correct possible printout troubles or flaws in printout quality, and to decide when assistance from the Service dept. of the nearest *UBI* distributor is required. Note that most problems are due to operating errors or normal wear of the printhead.

| Symptom                           | Possible Cause                                                                                                                                      | Remedy                                                                                      | Refer to                                                                                    |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Overall weak printout             | Wrong Paper type setup<br>Low Contrast setup<br>Printhead pressure too low<br>Worn printhead<br>Wrong printhead voltage                             | Change setup<br>Change setup<br>Adjust both knobs<br>Replace printhead<br>Replace CPU board | Technical Manual<br>Technical Manual<br>Technical Manual<br>User's Manual<br>☛ Call Service |
| Printout weaker on one side       | Uneven printhead pressure                                                                                                                           | Adjust outer knob                                                                           | Technical Manual                                                                            |
| Weak spots                        | Foreign particles on paper/ribbon<br>Paper/ribbon don't match<br>Poor paper or ribbon quality<br>Worn printhead<br>Worn pressing roller             | Clean<br>Use other media<br>Use other media<br>Replace printhead<br>Check/replace           | n.a.<br>Technical Manual<br>Technical Manual<br>User's Manual<br>☛ Call Service             |
| Overall dark printout             | Wrong Paper Type setup<br>Too high Contrast setup value<br>Printhead pressure too high<br>Wrong printhead voltage                                   | Change setup<br>Change setup<br>Adjust both knobs<br>Replace CPU board                      | Technical Manual<br>Technical Manual<br>Technical Manual<br>☛ Call Service                  |
| Excessive bleeding                | Wrong Paper Type setup<br>Contrast setup value too high<br>Printhead pressure too high<br>Faulty energy control                                     | Change setup<br>Change setup<br>Adjust both knobs<br>Replace CPU board                      | Technical Manual<br>Technical Manual<br>Technical Manual<br>☛ Call Service                  |
| Transfer ribbon breaks            | Ribbon fitted around label stop sensor<br>Wrong Paper Type setup<br>Ribbon unwind unit stuck<br>Bad energy control                                  | Reload ribbon<br>Change setup<br>Adjust<br>Check CPU board                                  | User's Manual<br>Technical Manual<br>☛ Call Service<br>☛ Call Service                       |
| White parts at transfer printing  | Transfer ribbon wrinkled                                                                                                                            | Adjust                                                                                      | See next paragraph                                                                          |
| Transfer ribbon wrinkles          | Incorrect paper guide ring adjustment<br>Ribbon obstructed by printhead cable<br>Too strong printhead pressure<br>Bad ribbon guide plate adjustment | Adjust<br>Clear<br>Adjust both knobs<br>Adjust                                              | User's Manual<br>n.a.<br>Technical Manual<br>Technical Manual                               |
| Dark lines along paper web        | Foreign objects on printhead<br>or ribbon guide plate                                                                                               | Clean printhead                                                                             | User's Manual                                                                               |
| White lines along paper web       | Printhead dirty<br>Missing dots on printhead                                                                                                        | Clean printhead<br>Replace printhead                                                        | User's Manual<br>User's Manual                                                              |
| Large part of dot line missing    | Wrong X-start or Width setup<br>Failing printhead<br>Failing strobe signal                                                                          | Change setup<br>Replace printhead<br>Check CPU-board                                        | Technical Manual<br>User's Manual<br>☛ Call Service                                         |
| Last part of label missing        | Too small image buffer                                                                                                                              | Increase buffer                                                                             | Technical Manual                                                                            |
| Printout missing along inner edge | Bad paper alignment<br>X-start setup value too low                                                                                                  | Adjust<br>Increase                                                                          | User's Manual<br>Technical Manual                                                           |